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ABSTRACT

Quality circles, small groups of employees working voluntarily toward performance improvement, have become a popular business strategy in the past decade. When effective, the quality circle may be linked directly to the increased productivity of the work group. The quality circle process may be divided into four components: identification and study of the problems, presentation of solutions to management, implementation of the solution, and evaluation of the implemented solution. Quality circles may be viewed as the managerial application of small group communication research. Small group communication research indicates that group productivity rests on (1) goal specification, (2) coworker resources, and (3) task demands. However, without skilled communicators as quality circle members, much of the total energy of the group may be misallocated, drained by ineffective information processing, the hostilities of unresolved conflict and reticent participation. The vital link between the effectiveness of the quality circle and increased productivity is communication skill within the small group itself, the origin of new information input. Thus, the productivity of quality circles is determined largely by communication variables. (HTH)

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THE RELATIONSHIP OF COMMUNICATION TO PRODUCTIVITY: QUALITY CIRCLES AS A MEDIATING VARIABLE

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ABSTRACT

Communication is prevalent in business. But is effective communication related to productivity? This question is investigated with a popular productivity improvement strategy, quality circles, as a mediating variable. Quality circles are essentially small group communication. Evidence indicates a relationship between effective small group communication and productivity.

INTRODUCTION

Extensive information is available which indicates that communication is a prevalent activity in business, that business people find effective communication skills important for career advancement, and that managerial communication is related to job satisfaction. However, the relationships between effective communication and organizational productivity have received limited attention. The purpose of this paper is to indicate how effective communication results in improved productivity when quality circles are a mediating variable.

QUALITY CIRCLES: A PRODUCTIVITY IMPROVEMENT STRATEGY

Quality circles, small groups of employees working voluntarily toward performance improvement efforts, have become a popular business strategy within the last decade. When effective, the quality circle may be linked directly to the increased productivity of the work group. Thompson, in his descriptive and prescriptive book Quality Circles, analyzes the structure and the process of this strategy. The structure is the group's composition which is circle members--peers within the work setting--and their leader, usually their work supervisor. Structural aspects of the circle also include an advisor (Thompson, 1982).

The quality-circle process may be divided into four components: identification and study of the problems, presentation of solutions to management, implementation of the solution, and evaluation of the

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solution as implemented (Thompson, 1982). Ideally, the structure and the processes of the quality circle complement each other to increase productivity. As Thompson writes: "Once installed, quality circles produce dramatic results for an organization. They improve morale, increase a sense of loyalty to the organization, and foster a sense of teamwork among employees who participate. They improve productivity of the organization" (Thompson, 1982, p. 11). Case studies citing benefits of quality circles are numerous. One case reported by officials of Toyota Auto Body cite these results: decline in defect rates from .95 defects per car completed in 1968 to .60 defects per car completed in 1973; reduction in man-hours per car from ten in 1968 to eight in 1973 (Thompson, 1982, p. 20). These typical qualitative and quantitative increases help demonstrate the potential that quality circles have to raise the group norm for productivity--a potential uncovered by Mayo more than 50 years ago in his famous studies conducted at the Hawthorne works (Etzioni, 1964). The Hawthorne Studies revealed the salience of the informal work group as a source of worker motivation. Specifically, these informal groups established production standards and enforced their norms through pressure for uniformity (Bradley and Baird, 1983). In addition, quality circles provide the opportunity for employee participation in task decisions. Lewin's classic research ascertained that workers were more productive (considering both quantity and quality), more independent (in terms of carrying out the job in the absence of supervision), and more satisfied with their work activities (Lewin, Lippitt and White, 1939). When the structure and processes of a quality circle increase worker participation in decision making, the quality circle is operating effectively; thus, the effective quality circle has the potential to increase the group norm for productivity both quantitatively and qualitatively. In other words, quality circles operate on a sound theoretical and empirical basis.

QUALITY CIRCLES ARE RELATED TO SMALL GROUP COMMUNICATION

The factor which needs to be isolated, then, is that which causes the quality circle to promote effectiveness or to increase productivity. Quality circles may be viewed as the managerial application of small group communication research. Smeltzer identifies seven key organizational elements which differentiate between those organizations ready to move with quality circles and those which require that remedial steps be taken first (Smeltzer, 1983). Whereas many of the elements relate to the communication climate initiated by management, one in particular focuses on communication clarity in information processing. He states that quality circles create a unique situation in that messages are originated at lower levels of an organization and sent upward. Quality circle proposals sent upward must receive timely responses from top management so the upper level must be ready to respond (Smeltzer, 1983). Thus, two-way communication variables such as management's timely feedback or accurate responsiveness to the quality circles message are seen to be imperative

in the readiness of an organization to instigate the quality-circle system.

However, the process of communication within the group itself may determine the effectiveness of the two-way communication between management and the circle as well as to the organization as a whole. In linear terms, the "message" originates within the small group of quality-circle members. The product of small group discussion, a possible solution to an organizational problem is the result of the information processing and human interaction of the individual members who make up the quality circle. Therefore, communication is crucial within the circle as it prepares for upward communication.

For purposes of this discussion, then, the unit of analysis is the small group. This unit is justified by the definition, structure, and process of a quality circle. The dynamics of quality circles are analyzed in terms of small group communication and research to illustrate the components of group effectiveness for quality circles.

Mabry defines a small group as "a network of people who have intentionally invested part of their personal decision-making power in the authority of a larger social unit . . . in pursuit of mutually desired but separately unobtainable goals" (Mabry and Barnes, 1980, p. 6). The quality circle is a small group of decision-makers operating within larger organizational structures. Moreover, effective quality circles depend on several communication variables. Gouran explains, "Successful group functioning is dependent not only on procedural varibles but on a host of other contextual, personal, and interpersonal factors as well" (Gouran, 1974, p. 6). Communication factors such as group interaction skills and information processing capabilities determine the successful dynamics of the quality circle--whose productivity is based on the continuous exchange of human behaviors.

QUALITY CIRCLE EFFECTIVENESS IS DETERMINED BY COMMUNICATION EFFECTIVENESS

Small group communication research indicates that "group productivity rests on (1) goal specification, (2) coworker resources, and (3) task demands" (Mabry and Barnes, 1980, p. 223). If the quality circle is to be productive, attention should be given to the process of group interaction, the crucial elements of which are communication behaviors. For the quality circle, the critical component of goal specification occurs early in the identification and study of problems. In this stage, research indicates that participation of each member is important in formulating goals. As group members communicate with each other about group and individual goals, they become psychologically committed to those goals. This commitment, in general, can be translated into production and satisfaction (Mabry and Barnes, 1980). However, for goal specification or for any other potential input, group membership may not guarantee participation. Communication variables affecting participation include the following:

> the type of leadership style used, spatial or other environmental factors, a person's place in an existing group network, how likeable or attractive others perceive an individual to be, the person's known status in other groups (that is pertinent or relevant to members in that particular groups) . . . , and so on. (Mabry and Barnes, 1980, p. 235)

In Bjork's study of a cooperative research project in a Swedish industry, results showed that workers were reticent to participate fully during various stages of work reorganization planning for fear of losing income, misunderstanding the consequences of human aspects related to group work, and not being motivated to maintain psychological involvement necessary for the experiment (Bjork, 1975). The quality circle is, in effect, a group which plans and reorganizes work--and "participation reticence" could occur in group members for many of the same reasons as Bjork discovered. The advantages reaped from participatory decision making are unlikely to surface if circle members are unskilled in information processing and human interaction, or are not confident of the purpose and motives of the group. Goal specification should stimulate participation, promote an open communication climate, and provide clarity for the small group's function.

Group and communication variables come into play particularly in analyzing co-worker resources. One powerful co-worker resource is associated with communication effectiveness skill. Attending to both the content and the process of the group interaction, a circle member works most productively with a "participant-observer-orientation." Effective participation as a group member depends on the ability to be involved simultaneously in participatory task responsibilities and engage in observation and analysis of the behavioral elements in a group's communication system (Mabry and Barnes, 1980). As an observer, the quality-circle member should process socio-emotional feedback information both verbally and nonverbally about the group function. A member's sensitivity to feedback can reveal the division of power and status within the group; moreover, it reveals a sense of group identity which may also reveal levels of cohesiveness in the group. A conceptual understanding of group cohesiveness is significant for the circle member who relates the group's identity to productive goals and tasks. If a coworker in a quality circle is talented, motivated and skilled in group communication, he or she can exert a positive modeling influence which raises the group norm for productivity.

In addition to the communication variables associated with goal specification and co-worker resources are those variables related to task demands. According to Steiner's research on small group problem-solving, solutions to a particular problem identified by the quality circle can be viewed as disjunctive, confunctive, additive, or discretionary (Steiner, 1972). These terms refer to the multiplicity of possible solutions to a problem and are also related directly to coworker resources. A disjunctive, or one-right-answer task, is dependent on the quality circle's most capable participant. When a task is disjunctive a group's potential productivity is determined by

the resources of its most competent member. Communication problems which may prevent the optimum or maximum input of the most competent quality-circle member include implications for both sender and receiver: the member's failure to express the correct answer, the member's failure to persuade acceptance of the correct answer, and the group's failure to accept the expressed contribution of the most competent member.

Conjunctive tasks also depend on one group member--the one who is least competent. Since conjunctive tasks are those defined by each participant's fulfilling an individual effort for group productivity, as in an assembly-line division of tasks, the member who does not understand the task or is not motivated will "pull down" the efforts of the whole group. Similar to the disjunctive task, the success or failure of the quality circle to meet its objectives for the conjunctive task is dependent on the processing of information.

In either disjunctive or conjunctive tasks, a group may fail to reach its potential productivity because of inadequate processing of information. Communication skills must be adequate to process the information. Members must be able to listen objectively to all contributions on their own merit without influence from group pressures. They must be sensitive to the verbal contributions of all, regardless of the skill with which they are contributed. They must be able to resist the temptation to reject ideas contributed by low status members without giving them a full hearing, and able to individually present ideas as convincingly and effectively as possible so that their ideas may receive a fair hearing.

Skillful processing of information is particularly important to the additive task, "a group norm that encourages equal contribution" (Mabry and Barnes, 1980). Since one member's input is directly tied to another's, group maintenance functions increase as coordination of input increases. The potential for conflict in the additive type of quality circle task is high unless a great deal of group energy is expende on socio-emotional variables. Lacking effective communication skills in listening or in creating a supportive climate, group members' task achievement, or productivity, is diminished to the extent that group maintenance functions decline.

Steiner defines the small group's discretionary task as one in which participants may select their most resourceful person to ascertain the answer to a problem, or they may choose any other combination of members they deem appropriate (Steiner, 1972). In other words, the discretionary task completion by the quality-circle members complete freedom in the way they process information. For effective discretionary task completion by the quality-circle, participants should be well aware of communication barriers in information processing which become "noise" during feedback. One person's solution or a sub-group decision may not have the emotional or intellectual backing of the whole circle even though the circle authorized the legitimate decision-making power initially. Again, the need for group energy toward socio-emotional factors

is evident, and a participant-observer-orientation toward interaction skills would increase the potential for success.

Goal specification, coworker resources, and task demands all are derived from group synergy, the total energy input of the members. However, without skilled communicators as quality-circle members much of the total energy of the group may be misallocated, drained by ineffective information processing, the hostilities of unresolved conflict, and reticent participation. Because of interpersonal communication demands, energy must be expended to overcome barriers in group interaction. The extent to which members are skilled in small group communication processes enhances the extent to which they will expend energy efficiently for group maintenance. Hence, effective synergy is the group energy remaining after group maintenance synergy is subtracted (Mabry and Barnes, 1980).

CONCLUSION

As Mabry elaborates, "The rigid nature of occupational roles that groups and individuals occupy is the greatest constraint to productivity" (Mabry and Barnes, 1980, p. 92). Quality circles provide business and industry a means of breaking out of its rigidity through a flexible structure and process. However, by increasing the possibility of employee participation in information input and decision making, management does not necessarily increase productivity--even with an open upward channel between the circle members and their supervisors. The vital link between the effectiveness of the quality circle and increased productivity is communication skill within the small group itself, the origin of the new information inputs. Thompson explains that "these inputs are usually relevant information, new proposals, or demands or requests that reflect the interests of the subgroup" (Thompson, 1982, p. 179). The quality and the quantity of these inputs are determined by the circle members' capacity for efficient, effective group interaction. "Productivity relies upon the ways information is processed at all levels in the organization: individual, group, multi-group unit, and in the organization as a whole" (Weick, 1979, p. 88). Thus, the productivity of the quality circle as it originates messages within the organization is determined largely by communication variables.

REFERENCES

Bjork, L. E. (1975). An experiment in work satisfaction. Scientific American, 232, 17-23.

Bradley, Patricia Hayes, & John E. Baird. (1983). Communication for business and the professions (2nd ed.). Dubuque, IA: Wm. C. Brown Company Publishers.

Etzioni, Amitai. (1964). Modern organizations. Englewood Cliffs, NJ: Prentice-Hall.

Gouran, Dennis S. (1974). Discussion: The process of group decision-making. Englewood Cliffs, NJ: Prentice-Hall.

Lewin, K., R. Lippitt, & R. K. White. (1939). Patterns of aggressive behavior in experimentally created social climates. Journal of Social Psychology, 10, 271-299.

Mabry, Edward A., & Richard E. Barnes. (1980). The dynamics of small group communication. Englewood Cliffs, NJ: Prentice-Hall.

Smeltzer, Larry R. (1983). Quality circles: A viable productivity improvement strategy. Louisiana Business Review, Fall 1983, pp. 30-34.

Steiner, I.D. (1972). Group process and productivity. New York: Academic Press.

Thompson, Phillip C. (1982). Quality circles: How to make them work in America. New York: AMACOM.

Weick, Karl. (1969). The social psychology of organizing. Reading, MA: Addison-Wesley.